CBE, Sierra Club, Center, ForestEthics et al. Comments on the Revised Draft Environmental Impact Report for the Phillips 66 Company Rail Spur Extension and Crude Unloading Project

ATTACHMENT C9

Attachments to Expert Report of Phyllis Fox on the Revised Draft Environmental Impact Report for the Phillips 66 Rail Spur Extension and Crude Unloading Project, November 2014.

1. Increase the Number of California Public Utilities Commission Rail Inspectors

The CPUC is responsible for enforcing federal and state railroad safety requirements, including those governing railroad tracks, facilities, bridges, rail crossings, motive power and equipment, operating practices, and hazardous material shipping requirements.

The CPUC has only 52 total authorized positions in the Railroad Operations and Safety Branch to handle inspections, investigations, and risk assessment and analysis for railroad operations (freight and passenger), including inspections of rail cars and thousands of miles of rail track, bridges and railroad crossings in the state. This staffing level is seriously inadequate given current and projected numbers of oil shipments. With existing resources, the CPUC is often not able to meet its statutory mandate to inspect every mile of railroad annually. Increased transportation of oil by rail will mean more tank cars subject to inspection, increased tonnage and wear and tear on track and structures, and greater potential for hazardous spills with explosive potential, creating a corresponding greater need for resources.

The Legislature should approve the proposal in the Governor's Budget to add seven rail inspectors to the CPUC so that it can carry out additional inspections and enforcement actions related to tank cars, railroad lines, bridges, and hazardous material shipping requirements necessary to respond to increases in the transport of oil by rail.

2. Improve Emergency Preparedness and Response Programs

The state needs to strengthen all aspects of its emergency preparedness and response programs to deal with the threats posed by oil by rail – from preparedness and training in advance of any incidents to effective response and cleanup after an incident occurs. State and local agencies have important, complementary responsibilities in this area. OES is responsible for coordinating emergency response statewide, while local agencies typically are the first on the scene responding following an incident. These agencies handle initial emergency response and immediate actions to abate the hazard. In the event of an oil spill, OSPR manages the incident, including cleanup, natural resource protection, hazardous waste management, and cost recovery from responsible parties. As agencies update their programs, they should do so in a coordinated fashion that does not result in duplicative efforts or obligations on industry.

Specific recommendations in this area include the following:

a. Expand the Oil Spill Prevention & Response Program to Cover Inland Oil Spills

The State Office of Spill Prevention and Response (OSPR) has a program to prevent, prepare for, and clean up oil spills in waters off the California coast, funded by a per barrel oil fee of 6.5 cents on oil transported over marine water. OSPR, however, has no comparable fee structure or authority for preparedness activities for oil that is transported to or within California by rail or pipeline, even though it is designated in statute as the state Incident Commander for spills to inland waters of the state. Therefore OSPR has no program in place to prepare for

1. Increase the Number of California Public Utilities Commission Rail Inspectors

The CPUC is responsible for enforcing federal and state railroad safety requirements, including those governing railroad tracks, facilities, bridges, rail crossings, motive power and equipment, operating practices, and hazardous material shipping requirements.

The CPUC has only 52 total authorized positions in the Railroad Operations and Safety Branch to handle inspections, investigations, and risk assessment and analysis for railroad operations (freight and passenger), including inspections of rail cars and thousands of miles of rail track, bridges and railroad crossings in the state. This staffing level is seriously inadequate given current and projected numbers of oil shipments. With existing resources, the CPUC is often not able to meet its statutory mandate to inspect every mile of railroad annually. Increased transportation of oil by rail will mean more tank cars subject to inspection, increased tonnage and wear and tear on track and structures, and greater potential for hazardous spills with explosive potential, creating a corresponding greater need for resources.

The Legislature should approve the proposal in the Governor's Budget to add seven rail inspectors to the CPUC so that it can carry out additional inspections and enforcement actions related to tank cars, railroad lines, bridges, and hazardous material shipping requirements necessary to respond to increases in the transport of oil by rail.

2. Improve Emergency Preparedness and Response Programs

The state needs to strengthen all aspects of its emergency preparedness and response programs to deal with the threats posed by oil by rail – from preparedness and training in advance of any incidents to effective response and cleanup after an incident occurs. State and local agencies have important, complementary responsibilities in this area. OES is responsible for coordinating emergency response statewide, while local agencies typically are the first on the scene responding following an incident. These agencies handle initial emergency response and immediate actions to abate the hazard. In the event of an oil spill, OSPR manages the incident, including cleanup, natural resource protection, hazardous waste management, and cost recovery from responsible parties. As agencies update their programs, they should do so in a coordinated fashion that does not result in duplicative efforts or obligations on industry.

Specific recommendations in this area include the following:

a. Expand the Oil Spill Prevention & Response Program to Cover Inland Oil Spills

The State Office of Spill Prevention and Response (OSPR) has a program to prevent, prepare for, and clean up oil spills in waters off the California coast, funded by a per barrel oil fee of 6.5 cents on oil transported over marine water. OSPR, however, has no comparable fee structure or authority for preparedness activities for oil that is transported to or within California by rail or pipeline, even though it is designated in statute as the state Incident Commander for spills to inland waters of the state. Therefore OSPR has no program in place to prepare for

and respond to oil spills to inland rivers, streams, or other water bodies, despite the fact that rail lines frequently operate near sensitive waterways in the state.

The Legislature should fund the proposal in the Governor's Budget to extend the per barrel fee to cover all sources of crude oil sent to refineries in the state, and to provide OSPR with the regulatory authority and resources to establish an inland spill preparedness and response program. This will enable OSPR to expand its proven maritime oil spill program to inland areas. The program will: support existing prevention measures as appropriate, enhance preparedness for spills (including training and drills, cleanup contractor testing requirements, industry drills and exercises, geographic response and contingency planning, oiled wildlife rescue and multi-agency coordination), and allow OSPR to oversee responses to oil spills in order to maximize containment, protect and restore natural resources, and ensure effective cleanup. These activities should be closely coordinated with the work of state and local emergency response agencies, as described below.

b. Provide Additional Funding for Local Emergency Responders

According to a recent analysis conducted by OES, numerous local emergency response offices lack adequate resources to respond to oil by rail accidents. Many of these first responders are in rural areas, such as Plumas, Siskiyou, and Modoc counties, where some of the highest risk rail lines are and some of our state's most pristine natural resources are located. Additionally, many of these areas have little or no funding for firefighters and rely on volunteer firefighters. Specifically, 40% of the fire fighters in California are volunteer firefighters, with many fire departments entirely staffed by volunteer firefighters. These departments lack the necessary capacity to support a hazmat team to purchase or maintain necessary specialized vehicles and equipment, or to obtain training in the specialized areas of oil rail safety and flammable liquid, and their response time to a significant oil by rail accident could be hours. Moreover, these small departments cannot rely on the assistance of larger, certified departments because those departments could be engaged in an incident locally and would be unavailable.

The Legislature should authorize additional funding to establish regional hazardous materials response teams and otherwise remedy the gaps in local emergency response training, equipment, and planning capabilities needed to adequately prepare for oil by rail incidents.

c. Review & Update of Local, State and Federal Emergency Response Plans

The State of California has several local, state and federal emergency response plans for government agencies to respond to and minimize the impacts of potential hazardous material incidents. These are implemented through various local and regional agencies, including Local Emergency Planning Committees (LEPCs) and six Mutual Aid Regions.

OES is currently leading an effort to review and update the six Regional Plans for Hazardous Materials Emergency Response, with the goal of developing a more

standardized approach to local emergency planning. As part of this assessment and update, OES should incorporate elements for responding to crude oil by rail incidents. OES should also review local Area Plans – plans prepared by local agencies that serve as a blueprint for responding to hazardous materials releases – to determine if updates due to potential increases in oil by rail incidents are appropriate.

In addition, OES, CalEPA and OSPR should partner with US EPA Region 9 and the FRA to undertake a review of local, state and federal emergency response plans to ensure they address the risks associated with increased transportation of oil by rail in California.

d. Improve Emergency Response Capabilities

Emergency responders currently lack basic, critical information needed to help plan for and respond to oil by rail incidents, including what resources railroads can provide in the event of an accident, and how they would respond to potential worst case scenarios.

The recent voluntary agreement between AAR and DOT calls on the railroads to develop an inventory of emergency response resources available in case of a release of large amounts of crude oil along routes over which trains with 20 or more cars of crude oil operate. This inventory will include locations for the staging of emergency response equipment and, where appropriate, contacts for the notification of communities. When the inventory is completed, railroads will provide DOT with information on the deployment of the resources and make the information available upon request to appropriate emergency responders.

In light of this agreement, OES should request that railroads provide a complete inventory of their firefighting and spill recovery resources to the state. Effective response capability planning requires that the state has information in advance on the type of equipment available, strategic location of the resources, as well as the amount accessible. This inventory assessment should also indicate how resources are deployed, the trigger points for deployment, and the contact names and numbers for these resources to be made available to the local emergency responders.

In addition to these resource inventories, OES, in coordination with OSPR, should request that the railroads provide "Worst Case Scenario" plans for responding to a multi-car incident in any part of California.

For oil by rail, a Worst Case Scenario plan would likely involve a major train derailment in a highly populated part of the state with 10 or more tank cars breaching, burning, exploding, and spilling oil downhill, resulting in high loss of life and extensive damage to buildings and communities. An example like this should be used to test the emergency response plans of the county or region that could be affected, and reveal any gaps in the response plans.

With both an inventory of resources and Worst Case Scenario plans from the railroads, state and local emergency responders can effectively test response capabilities and update Regional Plans and local Area Plans.

e. Request Improved Guidance from United States Fire Administration on Resources Needed to Respond to Oil by Rail Incidents

While the International Association of Fire Chiefs has recently provided helpful direction on planning for the safe transport of crude oil by rail, there is a need for additional guidance. Currently, nationwide, response teams and firefighters are unsure of the best response techniques and quantities of resources necessary to respond to oil by rail accidents, especially in light of recent explosions. Lessons can be learned from previous accidents in both the United States and Canada.

OSFM should request that the United States Fire Administration promptly issue guidance on the resources required, including, but not limited to:

i. Training based upon lessons learned during recent accidents across the United States to prepare firefighters for derailment, spill/leak, and fire risks. Training should highlight best practices from lessons learned from previous incidents and required resources for the hazard classification of this type of crude oil product.
ii. Provide accessible training in multiple formats (web based, video, or instructor facilitated) that allows for each state's fire service training organization to deliver the training to meet specific needs.

f. Increase Emergency Response Training

California firefighters and first responders lack training in the specialized areas of oil rail safety and flammable liquid, as well as financial resources to attend out of state trainings. To maximize state training capabilities, the state has begun planning for a multi-agency West Coast Regional Training Center in Sacramento. OES and OSFM should seek partnerships with railroads and oil companies to help fund establishment of this center.

3. Request Improved Identifiers on Tank Placards for First Responders

Information about the flash point and vapor pressure of the specific type of crude oil in each tank car is of critical importance in the event of a derailment so that emergency responders can quickly determine what resources and equipment are needed to contain the incident. Currently, this information is on-board the train, but not captured visually on tank car placards. If first responders can quickly identify an incident involving Bakken, or similar crude, from a safe distance by using the visual information on the placard, decisions can be made on whether to attack the fire or spill, or take a more defensive posture and wait for additional resources.

As New York recently concluded in its report, the United Nations, which assigns unique hazardous materials identifiers on tank placards, should recommend new classifications based on crude oil characteristics to enable appropriate packaging and inform response personnel as

to the qualities of the crude oil and the State of California supports this recommendation. This would provide the immediate visual identification required.

Alternatively, if the United Nations does not assign a new classification for this category of crude oil, OES, in coordination with CPUC should recommend that DOT, at a minimum, require some kind of external visual identification on tank cars of Bakken and similar crude, to aid first responders nationwide.

4. Request Railroads to Provide Real-Time Shipment Information to Emergency Responders

As noted, DOT recently issued an order requiring railroads transporting more than 1 million gallons of crude oil from the Bakken shale formation to provide the State Emergency Response Commission (the Chair of the Commission is the Director of OES) with information on expected weekly shipments of crude oil, including number of trains, contents of crude oil, and routes over which material will be transported. Upon receipt, OES will share this data with local, regional, and state emergency response offices throughout the state. OES also will share this information with the public to the maximum extent permitted by DOT rules and other applicable law.

While advance weekly information about crude by rail shipments by county is vital, local and state emergency responders and regulators will also benefit by knowing in actual real-time what is sent into the state, in what quantities, and along which routes.

CPUC and OES should request that Class I railroads operating in California establish a system where emergency responders can securely log-in and access the daily location and status of rail cars and train consists (including hazmat carload detail for Bakken crude oil and other hazardous substances).

5. Request Railroads Provide More Information to Affected Communities

The increase in oil by rail activity has generated considerable interest and concern from communities in which rail facilities are located or rail lines pass through. Communities in particular want more information about what steps the railroads are taking to ensure safety. The CPUC and OES should request that the railroads should provide better outreach programs and more information to communities, including interactive websites and open community forums, and updates on additional voluntary safety advancements.

6. Develop and Post Interactive Oil by Rail Map

The state should develop and post on a public website an interactive map depicting areas along rail lines with potential high vulnerability. The maps include layers that represent the major rail lines in California, locations of earthquake faults near rail lines, natural resource vulnerabilities (water crossings and sensitive ecosystems), population vulnerabilities (populated areas, schools, daycare centers, and hospitals), and rail segments that have an historically high frequency of derailments. The location of certified emergency response hazmat teams should be included. State agencies should update the webpage as relevant, additional information becomes publicly available

7. Request DOT to Expedite Phase Out of Older, Riskier Tank Cars

Currently, as much as 82% of crude oil in the United States is shipped in older model DOT-111 tank cars.[24] There is growing evidence that such cars are inadequate to protect against vapor explosions of highly flammable crude such as that from the Bakken shale formation. The remaining 18% of tank cars are new or retrofitted as a result of recent voluntary industry action to increase safety. As noted above, PHMSA is currently considering regulatory changes that will address tank cars, On May 7, 2014, it issued Safety Advisory 2014-01 strongly urging the phase-out of the older DOT-111 tank cars—but it did not require this by any certain date. On April 23, 2014 Canada ordered that older tank cars be phased out by May 2017 and that the least crash-resistant DOT-111 tank cars be removed from dangerous goods service within 30 days.[25]

The CPUC should request that DOT move expeditiously to finalize new and retrofitted tank car regulations that will result in a more rapid phase out of DOT 111 tank cars.

8. Accelerate Implementation of New Accident Prevention Technology

a. Positive Train Control

Positive Train Control (PTC) is an advanced technology that incorporates GPS tracking to automatically stop or slow trains prior to an accident. In particular, Positive Train Control is designed to prevent train-to-train collisions, derailments caused by excessive speed and unauthorized movement of trains onto sections of track where repairs are being made or as a result of a misaligned track switch. The Rail Safety Improvement Act of 2008 requires Class I railroads to install PTC on tracks that carry passengers or poison- or toxic-by-inhalation materials by the end of 2015.[26]

The CPUC should request that the FRA identify routes that crude oil trains are expected to run on without PTC in California under current requirements and consider requiring the implementation of Positive Train Control on these routes.

b. Electronically-Controlled Pneumatic Brakes

Electronically controlled pneumatic (ECP) brakes instantly signal a brake application to all cars, whereas current pneumatic brakes rely on lowering the air pressure in the train air brake line that can be well over a mile long.
This new braking technology provides faster application of brakes and reduces the chances of brake failure. Although each car in a train and the locomotive must be equipped with this technology, unit trains, which typically are used for oil by rail

[24] State of New York, "Transporting Crude Oil in New York State: A Review of Incident Prevention and Response Capacity," April 30, 2014, http://www.governor.ny.gov/assets/documents/CrudeOilReport.pdf.
[25] Government of Canada, "Transport Canada takes action in response to TSB's initial Lac-Mégantic recommendations," News Release, April 23, 2014, http://news.gc.ca/web/article-en.do?nid=841129.
[26] Association of American Railroads, "Positive Train Control," 2013, https://www.aar.org/safety/Pages/Positive-Train-Control.aspx#.U5DxwHJdVHU.

transport, are especially suited for this type of technology because all cars travel together and can operate efficiently under an overarching braking system.[27]

Crude oil trains represent the ideal application of this new technology.[28] Unit train cars stay together for long periods of service, new cars are being built, cars are likely undergoing retrofit, and the benefit is magnified by the magnitude of the risk reduction that would be accomplished for these high risk trains.

The CPUC should request that the FRA require electronically-controlled brake technology on crude oil trains.

9. Update California Public Utilities Commission Incident Reporting Requirements

Current CPUC reporting requirements for incidents involving hazardous materials releases have been interpreted by the railroads in varying ways, resulting in some railroads failing to report incidents, or to be late in reporting such incidents.

To ensure adequate and timely reporting, the CPUC should clarify incident reporting requirements for the release of hazardous substances by rail.

10. Request Railroads Provide the State of California with Broader Accident and Injury Data

Under federal law, states are entitled to receive information about railroad accidents and injuries provided to the federal government. However, while individual accident reports are available through the FRA's website, the state does not have access to basic, broader data (that the FRA receives) needed to determine accident and injury rates and trends for railroads operating in California—so called "normalizing data." This includes information such as the rate of accidents or injuries based on locomotive miles, passenger and freight train miles, number of passengers transported, and employee hours.

The CPUC should request that FRA provide state-specific normalizing data to enable state accident analysis, including trend analysis and risk assessment, to evaluate the risks presented by the transportation of oil by rail. (Notably, the railroads previously provided the state with this type of state-specific normalizing data for many years, but not more recently.)

11. Ensure Compliance with Industry Voluntary Agreement

As noted, earlier this year the railroad industry agreed with DOT to implement eight voluntary safety measures. While significant, these measures are only voluntary. To ensure that they are fully enforceable by federal and state authorities, DOT should codify the agreement into regulation. In the meantime, it is important for the state to monitor the agreement and ensure that the railroads comply with its provisions, as noted below. In addition, the agreement should be strengthened in several areas.

[27] Unit trains are freight trains carrying a single commodity that is bound for a single destination. Currently, unit trains carrying crude oil are generally between 70 to 100 cars long.

[28] Federal Railroad Administration (2006), Final Report, Booz Allen Hamilton.

- ***Increased Track Inspections*** – The voluntary agreement calls for additional internal rail and comprehensive track geometry inspections by the railroads.

  The CPUC should monitor and publicly report the extent of railroad compliance with these inspection requirements on crude oil routes. In addition, to the extent consistent with its existing inspection mandates, the PUC should conduct at least one additional inspection of the crude oil routes each year.

- ***Braking Systems*** – The agreement requires better braking systems that will allow train crews to apply emergency brakes from both ends of the train in order to stop trains faster. This end-of-train braking technology has been required for many years on certain trains and railroad grades, but the voluntary agreement goes beyond this by requiring it on crude oil trains regardless of the existing criteria.

  The CPUC should request that railroads document where the voluntary agreement adds this requirement, that is, where crude oil trains travel and the existing regulation does not apply. The CPUC should also request information on, and monitor, the extent to which the railroads have complied with this request and consider ways to enforce these voluntary braking applications.

- ***Use of Rail Traffic Routing Technology*** – The agreement calls for railroads to use a more sophisticated risk management tool that accounts for multiple risk factors in determining the safest and most secure rail routes for trains with 20 or more cars of crude oil.

  The CPUC should ask the FRA to provide the analysis and results of the route analyses outlined above. This will enable the CPUC to better plan its inspection and risk prevention activities.

- ***Lower Speeds*** – The agreement provides for lower speed limits (no more than 40 miles per hour) for crude oil trains of more than 20 cars containing older tank cars in federally designated "high-threat-urban areas."

  This designation may omit areas of California where lower speed limits could reasonably enhance safety. The CPUC should complete a survey of speed limits on California railroads and determine whether there are additional areas where lower speed limits might be appropriate. If, after the survey, speed reductions in particular areas appear warranted, the CPUC should petition the FRA to consider additional speed restrictions.

  In addition, the CPUC should develop a proposal for monitoring and enforcing the new speed limits outlined in the voluntary agreement.

- ***Increased Trackside Safety Technology*** – The agreement calls for railroads to employ wayside wheel bearing detectors every 40 miles along tracks with trains carrying 20 or more crude oil cars.

To ensure that optimal intervals are established for the defect, the CPUC should inventory wayside train inspection technology on crude oil shipment routes, and recommend additional actions, if necessary.

12. Ensure State Agencies Have Adequate Data

Multiple state agencies need timely and complete data to successfully evaluate and regulate the risks from oil by rail transport. This is highlighted throughout the recommendations in this report such as the need for real-time shipment information, and state-specific normalizing accident and injury data. Other data is critical for agencies such as the California Energy Commission and the Department of Oil and Gas and Geothermal Resources to analyze trends in petroleum demand and sources of oil and gas production,

State agencies currently are working to identify what data they have and where there may be potential data gaps, and should work with federal agencies and the rail industry to obtain the information needed to fill those data gaps.

State agencies should put in place or strengthen existing measures, to the extent that such measures are inadequate, to protect confidential business information and data that may impact national security.

V. Conclusion

Transportation of oil by rail has dramatically increased in recent years and will likely continue to increase in the future, both nationally and in California, because of the increased oil production from the Bakken shale and other oil fields. Current regulations and industry practices are not adequate given this recent boom. Minimizing the potentially serious risks of transporting oil by rail will require strengthened federal requirements, expedited tank car upgrades, and other proactive measures by industry. It will also require additional resources, planning and preparation, and coordination among local and state agencies.

This report represents interim recommendations of the interagency Rail Safety Working Group. The group will continue to meet and refine recommendations and actions in light of new information.

Appendix

Agency Glossary

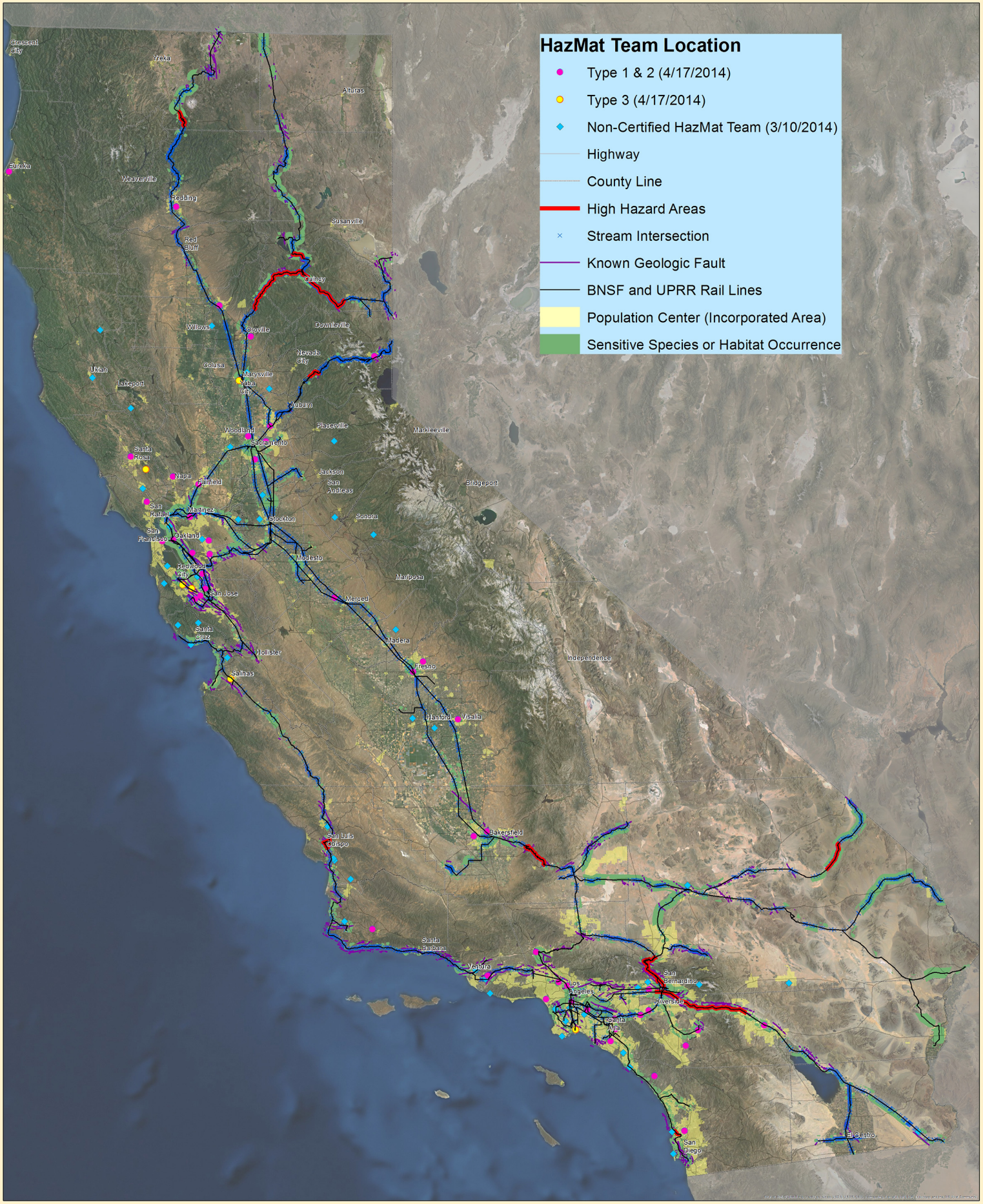
CalEPA	California Environmental Protection Agency
CalTech	California Department of Technology
CEC	California Energy Commission
CNRA	California Natural Resources Agency
CPUC	California Public Utilities Commission
DOGGR	Department of Oil, Gas and Geothermal Resources
DTSC	Department of Toxic Substances Control
OES	California Office of Emergency Services
OSFM	Office of the State Fire Marshal
OSPR	Office of Spill Prevention and Response

Recommendations by Agency

Lead Agency (or Agencies)	Recommendation
OES, CPUC, OSPR, EPA, CTA	Develop and post on a public website an interactive map depicting areas along rail lines with potential high vulnerability
OES, CPUC, OSPR, EPA, CEC, DOGGR	Identify any data gaps state agencies have and work with federal agencies and railroad industry to address
State Legislature	Approve the proposal in the Governor's Budget to add seven rail inspectors to the CPUC
State Legislature	Approve the proposal in the Governor's Budget to extend the per barrel oil fee to establish an inland oil spill preparedness and response program
State Legislature	Approve funding to establish regional hazardous materials response teams and otherwise remedy the gaps in local emergency response programs needed to adequately prepare for oil by rail incidents

OSPR	Establish inland oil spill preparedness and response program, upon funding by Legislature
OES	Incorporate elements for responding to crude oil by rail incidents in the assessment and update of the six Regional Plans for Hazardous Materials Emergency Response
OES	Review local Area Plans to determine if updates due to l increases in oil by rail incidents are appropriate
OES	Partner in coordination with CalEPA and OSPR with US EPA Region 9 and the FRA to undertake a review of local, state and federal emergency response plans
OES	Request that railroads provide a complete inventory of their firefighting and spill recovery resources (as outlined in the voluntary agreement)to the state
OES	Request (in coordination with OSPR) that the railroads provide "Worst Case Scenario" plans for responding to a multi-car incident in any part of California
OES	Recommend (in coordination with CPUC) that DOT require external visual identification on tank cars of Bakken and similar crude to aid first responders
OES	Request (in coordination with CPUC) that Class I railroads operating in California establish a system where emergency responders can securely log-in and access the daily location and status of rail cars and train consists
OES	Request (in coordination with CPUC) that the railroads provide better outreach programs and more information to communities
OSFM	Request that the United States Fire Administration promptly issue guidance on the resources required to respond to oil by rail accidents
OSFM	Seek partnerships (in coordination with OES) with railroads and oil companies to help fund establishment of a West Coast Regional Training Center
CPUC	Request that DOT move expeditiously to finalize new and retrofitted tank car regulations
CPUC	Request that the FRA identify routes that crude oil trains are expected to run on without PTC in California under current requirements and consider requiring the implementation of PTC on these routes
CPUC	Request that the FRA require electronically-controlled pneumatic brake technology on crude oil trains
CPUC	Clarify incident reporting requirements for the release of hazardous substances by rail

CPUC	Request that FRA provide California with normalized data to enable accident and injury analysis
CPUC	Monitor and publicly report the extent of railroad compliance with inspection requirements on crude oil
CPUC	Conduct at least one additional inspection of the crude oil routes each year, consistent with existing inspection requirements
CPUC	Request information on, and monitor, the extent to which the railroads have complied with the braking systems request (as outlined in the voluntary agreement)
CPUC	Ask the FRA to provide the results of the route analyses outlined in the voluntary agreement
CPUC	Complete a survey of speed limits on California railroads and determine whether there are additional areas where lower speed limits might be appropriate and if warranted, petition the FRA to consider additional restrictions
CPUC	Develop a proposal for monitoring and enforcing the new speed limits outlined in the voluntary agreement
CPUC	Inventory wayside train inspection technology on crude oil shipment routes



California Department of Fish and Wildlife
Office of Spill Prevention and Response

Data Source: CDFW, CDOC, CPUC, CalOES
Requestor: Rail Task Force
Author: J. Muskat
Date Created: 6/10/2014

NAD_1983_California_Teale_Albers

Crude By Rail
Areas of Concern